

=====

Sequence Listing was accepted.

If you need help call the Patent Electronic Business Center at (866)
217-9197 (toll free).

Reviewer: Anne Corrigan

Timestamp: [year=2009; month=7; day=8; hr=9; min=11; sec=10; ms=256;]

=====

Application No: 10526267

Version No: 3.0

Input Set:

Output Set:

Started: 2009-06-24 15:07:25.437

Finished: 2009-06-24 15:07:28.788

Elapsed: 0 hr(s) 0 min(s) 3 sec(s) 351 ms

Total Warnings: 69

Total Errors: 0

No. of SeqIDs Defined: 69

Actual SeqID Count: 69

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (1)
W 213	Artificial or Unknown found in <213> in SEQ ID (2)
W 213	Artificial or Unknown found in <213> in SEQ ID (3)
W 213	Artificial or Unknown found in <213> in SEQ ID (4)
W 213	Artificial or Unknown found in <213> in SEQ ID (5)
W 213	Artificial or Unknown found in <213> in SEQ ID (6)
W 213	Artificial or Unknown found in <213> in SEQ ID (7)
W 213	Artificial or Unknown found in <213> in SEQ ID (8)
W 213	Artificial or Unknown found in <213> in SEQ ID (9)
W 213	Artificial or Unknown found in <213> in SEQ ID (10)
W 213	Artificial or Unknown found in <213> in SEQ ID (11)
W 213	Artificial or Unknown found in <213> in SEQ ID (12)
W 213	Artificial or Unknown found in <213> in SEQ ID (13)
W 213	Artificial or Unknown found in <213> in SEQ ID (14)
W 213	Artificial or Unknown found in <213> in SEQ ID (15)
W 213	Artificial or Unknown found in <213> in SEQ ID (16)
W 213	Artificial or Unknown found in <213> in SEQ ID (17)
W 213	Artificial or Unknown found in <213> in SEQ ID (18)
W 213	Artificial or Unknown found in <213> in SEQ ID (19)
W 213	Artificial or Unknown found in <213> in SEQ ID (20)

Input Set:

Output Set:

Started: 2009-06-24 15:07:25.437
Finished: 2009-06-24 15:07:28.788
Elapsed: 0 hr(s) 0 min(s) 3 sec(s) 351 ms
Total Warnings: 69
Total Errors: 0
No. of SeqIDs Defined: 69
Actual SeqID Count: 69

Error code

Error Description

This error has occurred more than 20 times, will not be displayed

Sequence Listing

<110> Huang, Qingshan
Li, Guodong

<120> A GROUP OF SYNTHETIC ANTIMICROBIAL PEPTIDES

<130> H0757.70000US00

<140> 10526267

<141> 2009-06-24

<150> PCT/CN03/00522

<151> 2003-07-01

<150> CN 02136766.3

<151> 2002-09-02

<160> 69

<170> PatentIn Version 2.1

<210> 1

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Peptide

<220>

<221> misc_feature

<222> (12,16)

<223> Xaa=Lys or Arg

<220>

<221> misc_feature

<222> (13,17)

<223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>

<221> misc_feature

<222> (14,18)

<223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>

<221> misc_feature

<222> (15,19)

<223> Xaa=Lys or Arg

<400> 1

Arg Phe Arg Leu Val Arg Arg Ile Val Leu Ala Xaa Xaa Xaa Xaa

5

10

15

Xaa Xaa Xaa Xaa

```

<210> 2
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> misc_feature
<222> (12,16,20)
<223> Xaa=Lys or Arg

<220>
<221> misc_feature
<222> (13,17,21)
<223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
<221> misc_feature
<222> (14,18,22)
<223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
<221> misc_feature
<222> (15,19,23)
<223> Xaa=Lys or Arg

<400> 2
Arg Phe Arg Leu Val Arg Arg Ile Val Leu Ala Xaa Xaa Xaa Xaa
          5                                10                    15
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
          20

```

<220>
<221> misc_feature
<222> (15,19)
<223> Xaa=Lys or Arg

<400> 3
Arg Phe Lys Leu Val Arg Arg Ile Val Leu Ala Xaa Xaa Xaa Xaa
 5 10 15
Xaa Xaa Xaa Xaa

<210> 4
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> misc_feature
<222> (12,16,20)
<223> Xaa=Lys or Arg

<220>
<221> misc_feature
<222> (13,17,21)
<223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
<221> misc_feature
<222> (14,18,22)
<223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
<221> misc_feature
<222> (15,19,23)
<223> Xaa=Lys or Arg

<400> 4
Arg Phe Lys Leu Val Arg Arg Ile Val Leu Ala Xaa Xaa Xaa Xaa
 5 10 15
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 20

<210> 5
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> misc_feature

<222> (12,16)
 <223> Xaa=Lys or Arg

 <220>
 <221> misc_feature
 <222> (13,17)
 <223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

 <220>
 <221> misc_feature
 <222> (14,18)
 <223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

 <220>
 <221> misc_feature
 <222> (15,19)
 <223> Xaa=Lys or Arg

 <400> 5
 Arg Phe Lys Leu Val Lys Arg Ile Val Leu Ala Xaa Xaa Xaa Xaa
 5 10 15
 Xaa Xaa Xaa Xaa

<210> 6
 <211> 23
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Peptide

<220>
 <221> misc_feature
 <222> (12,16,20)
 <223> Xaa=Lys or Arg

<220>
 <221> misc_feature
 <222> (13,17,21)
 <223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
 <221> misc_feature
 <222> (14,18,22)
 <223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
 <221> misc_feature
 <222> (15,19,23)
 <223> Xaa=Lys or Arg

<400> 6
 Arg Phe Lys Leu Val Lys Arg Ile Val Leu Ala Xaa Xaa Xaa Xaa
 5 10 15
 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 20

<210> 7
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> misc_feature
<222> (12,16)
<223> Xaa=Lys or Arg

<220>
<221> misc_feature
<222> (13,17)
<223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
<221> misc_feature
<222> (14,18)
<223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
<221> misc_feature
<222> (15,19)
<223> Xaa=Lys or Arg

<400> 7
Arg Phe Lys Leu Val Lys Lys Ile Val Leu Ala Xaa Xaa Xaa Xaa
 5 10 15
Xaa Xaa Xaa Xaa

<210> 8
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> misc_feature
<222> (12,16,20)
<223> Xaa=Lys or Arg

<220>
<221> misc_feature
<222> (13,17,21)
<223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>

<221> misc_feature
 <222> (14,18,22)
 <223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

 <220>
 <221> misc_feature
 <222> (15,19,23)
 <223> Xaa=Lys or Arg

 <400> 8
 Arg Phe Lys Leu Val Lys Lys Ile Val Leu Ala Xaa Xaa Xaa Xaa
 5 10 15
 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 20

<210> 9
 <211> 19
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Peptide

<220>
 <221> misc_feature
 <222> (12,16)
 <223> Xaa=Lys or Arg

<220>
 <221> misc_feature
 <222> (13,17)
 <223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
 <221> misc_feature
 <222> (14,18)
 <223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
 <221> misc_feature
 <222> (15,19)
 <223> Xaa=Lys or Arg

<400> 9
 Lys Phe Lys Leu Val Lys Lys Ile Val Leu Ala Xaa Xaa Xaa Xaa
 5 10 15
 Xaa Xaa Xaa Xaa

<210> 10
 <211> 23
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Peptide

<220>
 <221> misc_feature
 <222> (12,16,20)
 <223> Xaa=Lys or Arg

<220>
 <221> misc_feature
 <222> (13,17,21)
 <223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
 <221> misc_feature
 <222> (14,18,22)
 <223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
 <221> misc_feature
 <222> (15,19,23)
 <223> Xaa=Lys or Arg

<400> 10
 Lys Phe Lys Leu Val Lys Lys Ile Val Leu Ala Xaa Xaa Xaa Xaa
 5 10 15
 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 20

<210> 11
 <211> 19
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Peptide

<220>
 <221> misc_feature
 <222> (12,16)
 <223> Xaa=Lys or Arg

<220>
 <221> misc_feature
 <222> (13,17)
 <223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
 <221> misc_feature
 <222> (14,18)
 <223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
 <221> misc_feature

<222> (15,19)
<223> Xaa=Lys or Arg

<400> 11
Arg Phe Arg Leu Phe Arg Arg Ile Leu Val Gly Xaa Xaa Xaa Xaa
 5 10 15
Xaa Xaa Xaa Xaa

<210> 12
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> misc_feature
<222> (12,16,20)
<223> Xaa=Lys or Arg

<220>
<221> misc_feature
<222> (13,17,21)
<223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
<221> misc_feature
<222> (14,18,22)
<223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
<221> misc_feature
<222> (15,19,23)
<223> Xaa=Lys or Arg

<400> 12
Arg Phe Arg Leu Phe Arg Arg Ile Leu Val Gly Xaa Xaa Xaa Xaa
 5 10 15
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 20

<210> 13
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>

<221> misc_feature
<222> (12,16)
<223> Xaa=Lys or Arg

<220>
<221> misc_feature
<222> (13,17)
<223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
<221> misc_feature
<222> (14,18)
<223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
<221> misc_feature
<222> (15,19)
<223> Xaa=Lys or Arg

<400> 13
Arg Phe Lys Leu Phe Arg Arg Ile Leu Val Gly Xaa Xaa Xaa Xaa
 5 10 15
Xaa Xaa Xaa Xaa

<210> 14
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> misc_feature
<222> (12,16,20)
<223> Xaa=Lys or Arg

<220>
<221> misc_feature
<222> (13,17,21)
<223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
<221> misc_feature
<222> (14,18,22)
<223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
<221> misc_feature
<222> (15,19,23)
<223> Xaa=Lys or Arg

<400> 14
Arg Phe Lys Leu Phe Arg Arg Ile Leu Val Gly Xaa Xaa Xaa Xaa

5
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
20

10

15

<210> 15
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> misc_feature
<222> (12,16)
<223> Xaa=Lys or Arg

<220>
<221> misc_feature
<222> (13,17)
<223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
<221> misc_feature
<222> (14,18)
<223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
<221> misc_feature
<222> (15,19)
<223> Xaa=Lys or Arg

<400> 15
Arg Phe Lys Leu Phe Lys Arg Ile Leu Val Gly Xaa Xaa Xaa Xaa
5 10 15
Xaa Xaa Xaa Xaa

<210> 16
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> misc_feature
<222> (12,16,20)
<223> Xaa=Lys or Arg

<220>

<221> misc_feature
<222> (13,17,21)
<223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
<221> misc_feature
<222> (14,18,22)
<223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
<221> misc_feature
<222> (15,19,23)
<223> Xaa=Lys or Arg

<400> 16
Arg Phe Lys Leu Phe Lys Arg Ile Leu Val Gly Xaa Xaa Xaa Xaa
 5 10 15
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 20

<210> 17
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> misc_feature
<222> (12,16)
<223> Xaa=Lys or Arg

<220>
<221> misc_feature
<222> (13,17)
<223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
<221> misc_feature
<222> (14,18)
<223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
<221> misc_feature
<222> (15,19)
<223> Xaa=Lys or Arg

<400> 17
Arg Phe Lys Leu Phe Lys Lys Ile Leu Val Gly Xaa Xaa Xaa Xaa
 5 10 15
Xaa Xaa Xaa Xaa

<210> 18
 <211> 23
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Synthetic Peptide

 <220>
 <221> misc_feature
 <222> (12,16,20)
 <223> Xaa=Lys or Arg

 <220>
 <221> misc_feature
 <222> (13,17,21)
 <223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

 <220>
 <221> misc_feature
 <222> (14,18,22)
 <223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

 <220>
 <221> misc_feature
 <222> (15,19,23)
 <223> Xaa=Lys or Arg

 <400> 18
 Arg Phe Lys Leu Phe Lys Lys Ile Leu Val Gly Xaa Xaa Xaa Xaa
 5 10 15
 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 20

<210> 19
 <211> 19
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Synthetic Peptide

 <220>
 <221> misc_feature
 <222> (12,16)
 <223> Xaa=Lys or Arg

 <220>
 <221> misc_feature
 <222> (13,17)
 <223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

 <220>
 <221> misc_feature
 <222> (14,18)
 <223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
 <221> misc_feature
 <222> (15,19)
 <223> Xaa=Lys or Arg

 <400> 19
 Lys Phe Lys Leu Phe Lys Lys Ile Leu Val Gly Xaa Xaa Xaa Xaa
 5 10 15
 Xaa Xaa Xaa Xaa

<210> 20
 <211> 23
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Peptide

<220>
 <221> misc_feature
 <222> (12,16,20)
 <223> Xaa=Lys or Arg

<220>
 <221> misc_feature
 <222> (13,17,21)
 <223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
 <221> misc_feature
 <222> (14,18,22)
 <223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
 <221> misc_feature
 <222> (15,19,23)
 <223> Xaa=Lys or Arg

<400> 20
 Lys Phe Lys Leu Phe Lys Lys Ile Leu Val Gly Xaa Xaa Xaa Xaa
 5 10 15
 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 20

<210> 21
 <211> 19
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Peptide

<220>
 <221> misc_feature

<222> (12,16)
 <223> Xaa=Lys or Arg

 <220>
 <221> misc_feature
 <222> (13,17)
 <223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

 <220>
 <221> misc_feature
 <222> (14,18)
 <223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

 <220>
 <221> misc_feature
 <222> (15,19)
 <223> Xaa=Lys or Arg

 <400> 21
 Arg Phe Arg Gly Val Arg Arg Ile Leu Val Gly Xaa Xaa Xaa Xaa
 5 10 15
 Xaa Xaa Xaa Xaa

<210> 22
 <211> 23
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Peptide

<220>
 <221> misc_feature
 <222> (12,16,20)
 <223> Xaa=Lys or Arg

<220>
 <221> misc_feature
 <222> (13,17,21)
 <223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
 <221> misc_feature
 <222> (14,18,22)
 <223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
 <221> misc_feature
 <222> (15,19,23)
 <223> Xaa=Lys or Arg

<400> 22
 Arg Phe Arg Gly Val Arg Arg Ile Leu Val Gly Xaa Xaa Xaa Xaa
 5 10 15
 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 20

<210> 23
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> misc_feature
<222> (12,16)
<223> Xaa=Lys or Arg

<220>
<221> misc_feature
<222> (13,17)
<223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
<221> misc_feature
<222> (14,18)
<223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
<221> misc_feature
<222> (15,19)
<223> Xaa=Lys or Arg

<400> 23
Arg Phe Arg Gly Val Lys Arg Ile Leu Val Gly Xaa Xaa Xaa Xaa
 5 10 15
Xaa Xaa Xaa Xaa

<210> 24
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> misc_feature
<222> (12,16,20)
<223> Xaa=Lys or Arg

<220>
<221> misc_feature
<222> (13,17,21)
<223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
<221> misc_feature
<222> (14,18,22)

<223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>

<221> misc_feature

<222> (15,19,23)

<223> Xaa=Lys or Arg

<400> 24

Arg Phe Arg Gly Val Lys Arg Ile Leu Val Gly Xaa Xaa Xaa Xaa

5

10

15

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa

20

<210> 25

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Peptide

<220>

<221> misc_feature

<222> (12,16)

<223> Xaa=Lys or Arg

<220>

<221> misc_feature

<222> (13,17)

<223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>

<221> misc_feature

<222> (14,18)

<223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>

<221> misc_feature

<222> (15,19)

<223> Xaa=Lys or Arg

<400> 25

Arg Phe Arg Gly Val Lys Lys Ile Leu Val Gly Xaa Xaa Xaa Xaa

5

10

15

Xaa Xaa Xaa Xaa

<210> 26

<211> 23

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Peptide

<220>

<221> misc_feature
<222> (12,16,20)
<223> Xaa=Lys or Arg

<220>
<221> misc_feature
<222> (13,17,21)
<223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
<221> misc_feature
<222> (14,18,22)
<223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
<221> misc_feature
<222> (15,19,23)
<223> Xaa=Lys or Arg

<400> 26
Arg Phe Arg Gly Val Lys Lys Ile Leu Val Gly Xaa Xaa Xaa Xaa
 5 10 15
Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 20

<210> 27
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> misc_feature
<222> (12,16)
<223> Xaa=Lys or Arg

<220>
<221> misc_feature
<222> (13,17)
<223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
<221> misc_feature
<222> (14,18)
<223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
<221> misc_feature
<222> (15,19)
<223> Xaa=Lys or Arg

<400> 27
Lys Phe Arg Gly Val Lys Lys Ile Leu Val Gly Xaa Xaa Xaa Xaa
 5 10 15

Xaa Xaa Xaa Xaa

<210> 28
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<220>
<221> misc_feature
<222> (12,16,20)
<223> Xaa=Lys or Arg

<220>
<221> misc_feature
<222> (13,17,21)
<223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
<221> misc_feature
<222> (14,18,22)
<223> Xaa=Gly or Ala or Val or Leu or Ile or Phe

<220>
<221> misc_feature
<222> (15,19,23)
<223> Xaa=Lys or Arg

<400> 28
Lys Phe Arg Gly Val Lys Lys Ile Leu Val Gly Xaa Xaa Xaa Xaa
 5 10 15
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 20

<210> 29
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<